

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: LYFORD POND	Lake Area (ha): 10.52
Town: CANTERBURY	Maximum depth (m): 2.7
County: Merrimack	Mean depth (m): 1.4
River Basin: Merrimack	Volume (m <sup>3</sup> ): 144000
Latitude: 43°23'53" N	Relative depth: 0.7
Longitude: 71°29'12" W	Shore configuration: 1.26
Elevation (ft): 814	Areal water load (m/yr): 5.84
Shore length (m): 1450	Flushing rate (yr <sup>-1</sup> ): 4.30
Watershed area (ha): 141.9	P retention coeff.: 0.63
% watershed ponded: 0.0	Lake type: natural w/dam

BIOLOGICAL:

		14 January 1998	7 July 1997
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 70%	UROGLENOPSIS 65%
	#2	MALLOMONAS 15%	ANABAENA 15%
	#3		MALLOMONAS 7%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			4.01
DOM. ZOOPLANKTON (% TOTAL)	#1	POLYARTHRA 88%	VORTICELLA 58%
	#2		NAUPLIUS LARVA 25%
	#3		HOLOPEDIDIUM 12%
ROTIFERS/LITER		28	8
MICROCRUSTACEA/LITER		4	153
ZOOPLANKTON ABUNDANCE (#/L)		32	387
VASCULAR PLANT ABUNDANCE			Common/Abun
SECCHI DISK TRANSPARENCY (m)			2.7 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		6.7	8.1
BACTERIA (E. coli, #/100 ml)	#1		2
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: LYFORD POND

Town: CANTERBURY

	14 January 1998		7 July 1997		
DEPTH (m)	1.5		1.0		2.0
pH (units)	5.8		6.7		6.6
A.N.C. (Alkalinity)	6.4		4.6		4.9
NITRATE NITROGEN	0.10		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30		0.20		0.20
TOTAL PHOSPHORUS	0.013		0.016		0.011
CONDUCTIVITY ( $\mu$ mhos/cm)	40.9		34.0		33.8
APPARENT COLOR (cpu)	16		17		15
MAGNESIUM			0.69		
CALCIUM			1.6		
SODIUM			3.7		
POTASSIUM			0.49		
CHLORIDE	6		5		5
SULFATE	2				
TN : TP	31		13		18
CALCITE SATURATION INDEX			3.7		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1997**

D.O. S.D. PLANT CHL TOTAL CLASS

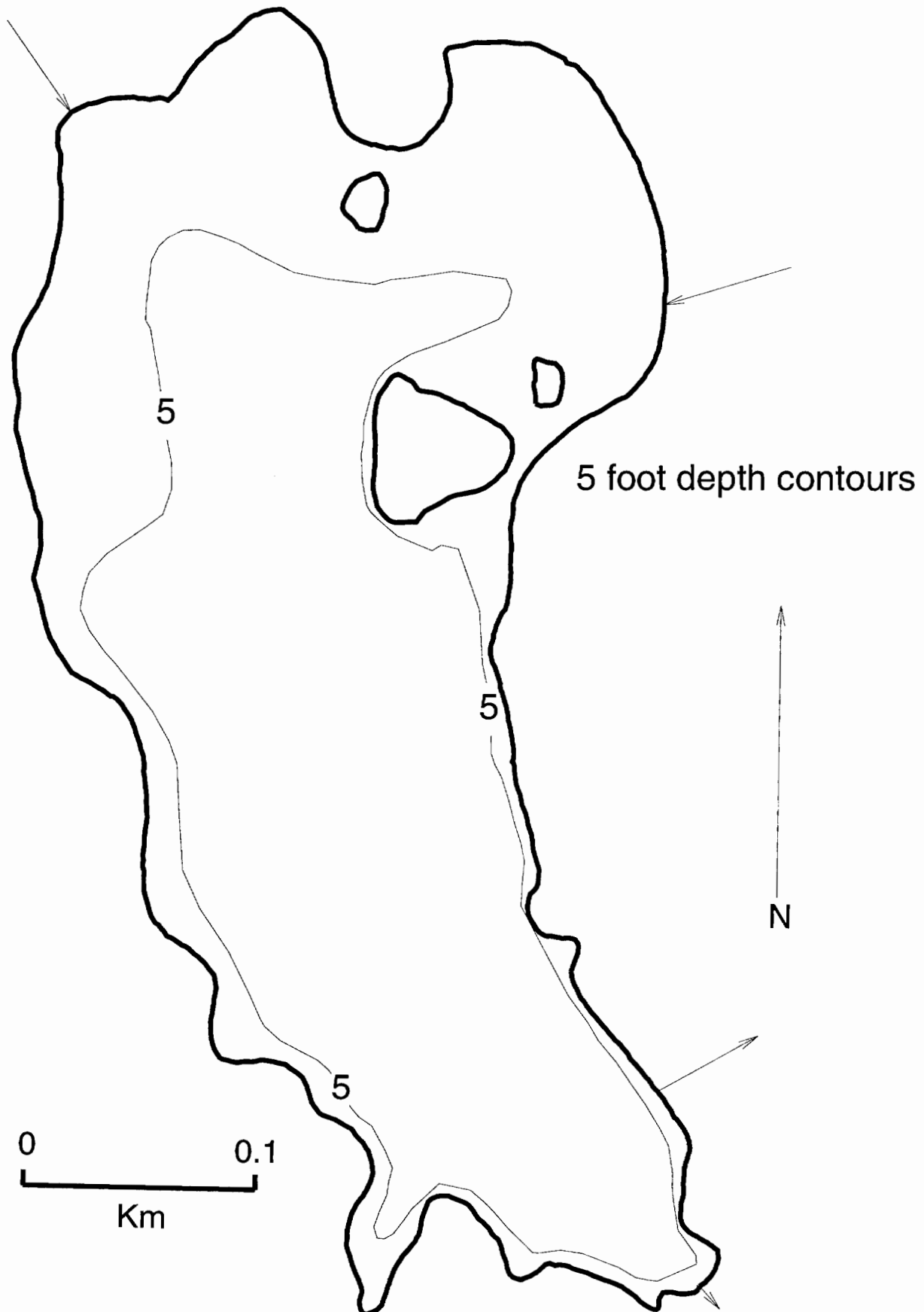
**	2	4	1	7	Meso.
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**COMMENTS:**

1. Lyford Pond was previously surveyed in 1985. It was classified oligotrophic, but there was little significant change in water quality between the two dates (most of the change in classification was due to the revised classification system). Macrophyte growth was subjectively evaluated as somewhat more abundant in 1997.
2. No public access; no motors allowed.
3. The blue-green alga *Anabaena* was the second dominant summer plankton.

# Lyford Pond

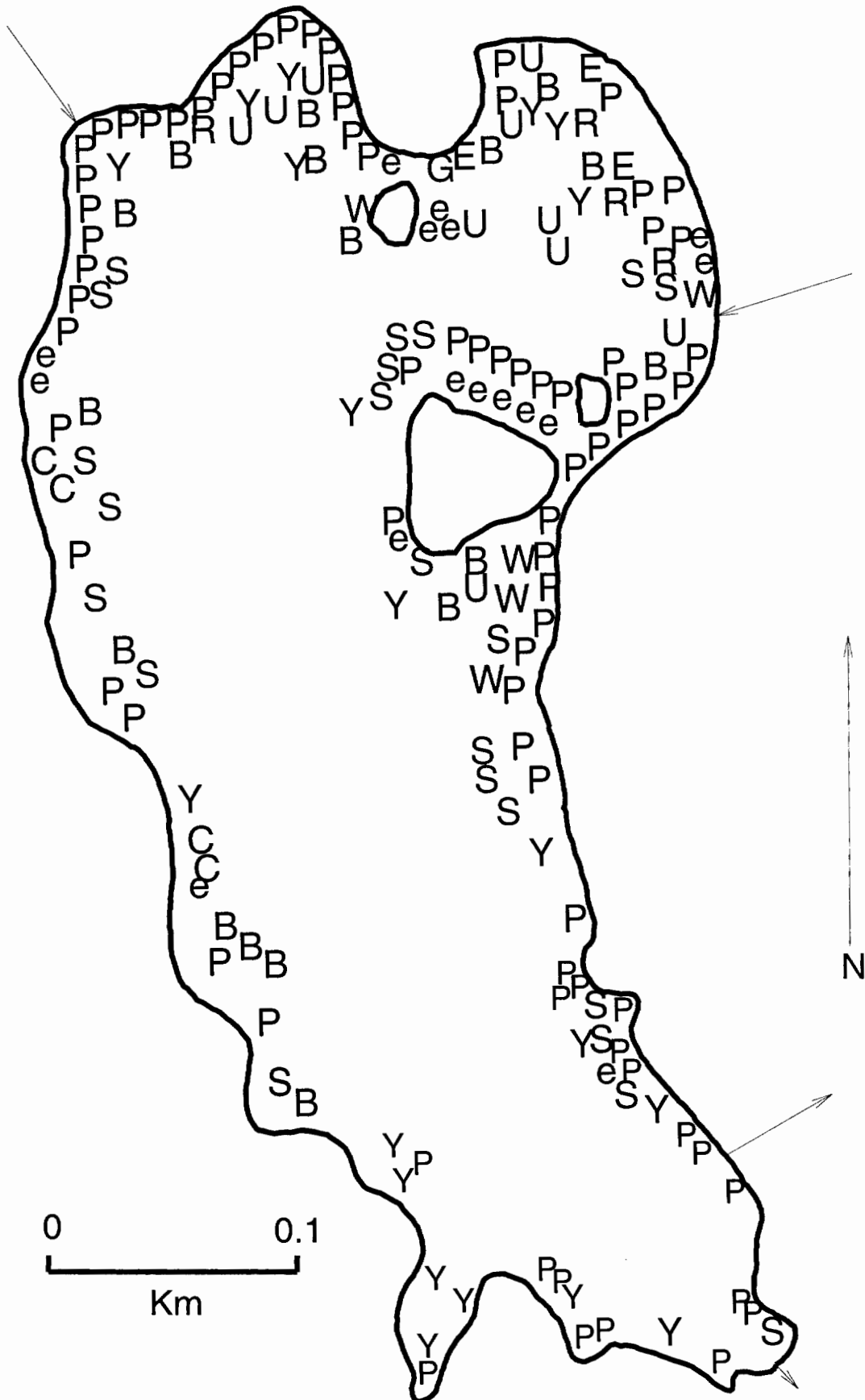
## Canterbury



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# Lyford Pond

## Canterbury



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